

## FESHM 10150: ONSITE HAZARDOUS MATERIAL TRANSPORTATION

### Revision History

<b>Author</b>	<b>Description of Change</b>	<b>Revision Date</b>
Brian Niesman	Added a definition of "requestor" (Requestor: Person requesting the transportation of goods from one location to another location. Person requesting such transportation of goods that are hazardous, going off-site, or going into the property management system (storage, excess, scrap, etc.) must complete a material move request), other minor editorial changes.	March 2016

## TABLE OF CONTENTS

1.0	INTRODUCTION.....	3
2.0	APPLICABILITY .....	3
	<i>NOTE: See the following sections of this chapter for specific transportation requirements. ....</i>	<i>3</i>
	➤ <i>Hazardous waste-Section 4.1 .....</i>	<i>3</i>
3.0	DEFINITIONS .....	3
4.0	PROGRAM IMPLEMENTATION .....	4
4.1	Policy.....	4
4.2.	Organizational Responsibilities.....	4
4.2.1	Facilities Engineering Services Section Transportation Services.....	4
4.2.2	Environment, Safety, Health, and Quality (ESH&Q) Section.....	5
4.2.3	Division/Section/Project .....	5
4.3	Training .....	5
4.4	Procedures for Radioactive and Hazardous Material Transportation .....	5
4.4.1	Hazardous Materials .....	5
4.4.2	Radioactive Materials .....	6
4.4.3	Hazardous Waste.....	6
4.4.4	Radioactive Waste .....	6
4.4.5	Mixed Waste.....	6
4.5	Reporting Hazardous Material Transportation Incidents .....	6
4.6.	Packaging .....	6
4.6.1	Onsite Transportation .....	6
4.6.2	Single Packaging .....	6
4.6.3	Combination Packaging.....	7
4.7	Separation & Segregation of Hazardous Materials .....	7
4.8	Driver Requirements .....	7
4.8.1	Commercial Driver's License (CDL).....	7
4.8.2	Prolonged Periods of Driving .....	7
4.8.3	Drug & Alcohol Testing .....	7
4.8.4	Training Requirements .....	8

## 1.0 INTRODUCTION

Fermilab is a restricted-access site. Therefore, transportation of hazardous materials on Fermilab roads is exempt from State and Federal Department of Transportation (DOT) regulations.

This chapter provides a means of describing and documenting Fermilab's hazardous material packaging and transportation policies and procedures for onsite transfers.

## 2.0 APPLICABILITY

This chapter applies to all onsite transfers of hazardous material conducted by Fermilab personnel. It includes all hazardous material transfers conducted via:

- any motorized vehicle,
- trailers towed by motorized vehicles,
- portable tanks towed by motorized vehicles, and
- cargo tanks towed by motorized vehicles.

### EXCEPTIONS:

- Liquid hazardous material (excluding radioactive material) in individual containers in a quantity  $\leq$  one (1) gallon or four (4) quarts -- (*multiple containers of these quantities in one outer container are also exempt -- e.g., a fiberboard box containing four - one gallon bottles of ethyl alcohol*)
- Solid hazardous material in a single container of  $\leq$  eight (8) pounds (*multiple containers of this quantity in one outer container are also exempt -- e.g., a fiberboard box containing four - eight pound cans of powdered caustic soda*)
- All aerosol spray cans
- Movements of hazardous materials within a division or section that does not require Transportation Services assistance
- Compressed Gas cylinders moved by Transportation Services
- Hazardous materials distribution by Transportation Services from outside vendors

**NOTE:** See the following sections of this chapter for specific transportation requirements.

- *Hazardous waste-Section 4.1*
- *Radioactive materials-Section 4.2*
- *Mixed waste-Section 4.3*
- *Hazardous materials-Section 4.4*
- *Radioactive waste-Section 4.5*

## 3.0 DEFINITIONS

**Combination Packaging:** An outer packaging containing one or more inner packaging. For example: a fiberboard box containing a 2-gallon bottle of Isopropyl Alcohol.

**Hazardous Material:** Any material listed on the "Hazardous Materials Table" in 49 CFR 172.101. (*NOTE: use this table only to determine if the material to be transported is hazardous for transportation -- DO NOT attempt to track the references to other parts of the CFR as contained in the table. Only reference other parts of the CFR when specifically required by this chapter.*)

**Hazardous Waste:** Any hazardous material that is being transported for disposal purposes. It also includes any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR 262. (*Note: if a Hazardous Waste Manifest is not required -- follow the transportation requirements contained in this chapter.*)

**Requestor:** Person requesting the transportation of goods from one location to another location. Person requesting such transportation of goods that are hazardous, going off-site, or going into the property management system (storage, excess, scrap, etc.) must complete a material move request.

**Single Packaging:** One container that does NOT contain any inner or outer packaging. For example: a 5-gallon can of gasoline.

## 4.0 PROGRAM IMPLEMENTATION

### 4.1 Policy

It is Fermilab's policy to insure that all hazardous material and waste is packaged, identified, loaded and unloaded, and transported in a manner to assure:

- all on-site transfers are performed in compliance with this chapter;
- the safety and health of Fermilab and subcontractor employees, the general public, and the environment are protected.

### 4.2. Organizational Responsibilities

#### 4.2.1 Facilities Engineering Services Section Transportation Services

Fermilab's Transportation Services Department is responsible for:

- transporting incoming hazardous material from the receiving dock to its end-user, and
- operation and inspection of Transportation Services' vehicles used for onsite transfers of hazardous material, and maintaining them in a safe operating condition.
- moving hazardous materials onsite as requested by other divisions and sections, and
- maintaining Material Move Request (MMR) forms for a minimum of one (1) year.

#### **4.2.2 Environment, Safety, Health, and Quality (ESH&Q) Section**

The ESH&Q Section is responsible for programmatic oversight of onsite transportation of radioactive and regulated hazardous wastes. These responsibilities are carried out by the Hazard Control Technology Team (HCTT).

#### **4.2.3 Division/Section/Project**

Fermilab divisions/sections are responsible for:

- Documenting procedures (when more stringent than the requirements of this chapter) for hazardous material transported by their division/section personnel. (If transportation involves more than one division/section, the movement shall be performed according to the requirements of the division/section physically transporting the material.) Maintain MMR forms for a minimum of one (1) year.

### **4.3 Training**

Each employee involved in hazardous material transportation covered by this section shall receive Hazard Communication and either DOT Hazardous Materials Regulations for Transportation Personnel or Hazardous Materials/Waste Transportation training prior to performing such work. This includes those who:

- load, unload, or handle hazardous material,
- test, recondition, repair, modify, mark, or otherwise represent containers, drums, or packaging as qualified for use in the transportation of hazardous material,
- prepare hazardous material for transportation, or
- operate a vehicle used to transport hazardous material.

### **4.4 Procedures for Radioactive and Hazardous Material Transportation**

Each division/section is responsible for ensuring that hazardous material is transported in accordance with this chapter. The Facilities Engineering Services Section, Transportation Services Department is available for division/section assistance.

#### **4.4.1 Hazardous Materials**

All on-site movement of hazardous materials transported by the Transportation Services department, except radioactive waste, hazardous waste, and items being received from offsite, shall be initiated using the MMR form. Procedures for proper use of the MMR are included in the Technical Appendix A at the back of this Chapter and in a link in Service Now.

#### **4.4.2 Radioactive Materials**

All on-site movement of radioactive materials transported by the Transportation Services department other than radioactive waste, and items being received from offsite, shall be initiated using the MMR form in accordance with [Article 423](#) of the Fermilab Radiological Control Manual. Procedures for proper use of the MMR are included in the Technical Appendix A at the back of this Chapter and in a link in Service Now.

#### **4.4.3 Hazardous Waste**

All on site movement of hazardous waste is the responsibility of the HCTT. You must contact a member of the HCTT to initiate the transportation of hazardous waste.

#### **4.4.4 Radioactive Waste**

All on site movement of radioactive waste is the responsibility of the HCTT. You must contact a member of the HCTT to initiate the transportation of radioactive waste.

#### **4.4.5 Mixed Waste**

All on site movement of mixed waste is the responsibility of the HCTT. You must contact a member of the HCTT to initiate the transportation of mixed waste.

### **4.5 Reporting Hazardous Material Transportation Incidents**

Incident reporting and emergency response for hazardous material and transportation incidents shall be done by immediately calling the Communication Center at x3131.

### **4.6. Packaging**

#### **4.6.1 Onsite Transportation**

Packaging of hazardous material for vehicular transportation within the Fermilab site boundaries shall be conducted in accordance with the procedures provided below.

#### **4.6.2 Single Packaging**

All single packaging shall:

- be identified,
- be chemically compatible with their contents, and
- not be used for transportation if damaged; damage includes rust, holes, dents, creases, crushed or compacted areas, wet spots or stains, improper closures, general corrosion, and any other condition that could pose a

hazard during transportation. *NOTE: each division/section shall be responsible for determining if a package is suitable for transportation.*

#### **4.6.3 Combination Packaging**

The following types of containers may only be used as inner receptacles:

- glass or earthenware receptacles, and
- glass ampoules

All inner receptacles must:

- be packed so that closures are positioned upright,
- be secured and surrounded by cushioning materials,
- be packed within an outer packaging that does not contain sharp objects such as nails or staples protruding into the interior of the outer packaging,
- be chemically compatible with their contents,
- contain only mixed contents that are compatible,
- be identified.

#### **4.7 Separation & Segregation of Hazardous Materials**

During storage in preparation of transportation, and during transportation, hazardous material shall be separated/segregated as prescribed by 49 CFR - 177.848 (Segregation Table For Hazardous Material).

#### **4.8 Driver Requirements**

##### **4.8.1 Commercial Driver's License (CDL)**

Employees shall possess a valid CDL if their job duties require driving a vehicle transporting hazardous material in quantities  $\geq 1,000$  lbs., including the weight of the packaging. This requirement applies only to Facilities Engineering Services Section personnel. All other employees are prohibited from transporting hazardous material in quantities greater than 1000 lbs.

##### **4.8.2 Prolonged Periods of Driving**

Employees transporting hazardous material shall follow DOT prescribed hours of work rules.

##### **4.8.3 Drug & Alcohol Testing**

Employees possessing a CDL as required by this chapter shall receive drug & alcohol testing as prescribed in the Fermilab Drug & Alcohol Program maintained in the Medical Department (Wilson Hall, GF-West).

#### **4.8.4 Training Requirements**

In addition to Hazard Communication, employees shall receive any additional training identified through the Individual Training Needs Assessment (ITNA) process.

### **5.0 Material Move Request**

The Material Move Request (MMR) is an electronic form which can be found on-line in Service Now.